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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/983,047	10/15/2001	Gregory H. Ames	78381	8178

7590 09/03/2003

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EXAMINER

THOMAS, COURTNEY D

ART UNIT PAPER NUMBER

2882

DATE MAILED: 09/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/983,047

Applicant(s)

AMES, GREGORY H.

Examiner

Courtney Thomas

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,8,9 and 11-14 is/are rejected.
- 7) ☒ Claim(s) 3,7 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 17 July 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

2. The drawings were received on 07.17.03. These drawings are acceptable.

Specification

3. The disclosure is objected to because of the following informalities: Co-pending application entitled "Multiplexed Fiber Laser Sensor System" (serial number: 09/983046) has been allowed and is now U.S. Patent 6,563,969.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1, 2, 4-6, 8, 9 and 11-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Schroeder et al. (U.S. Patent 6,218,661).

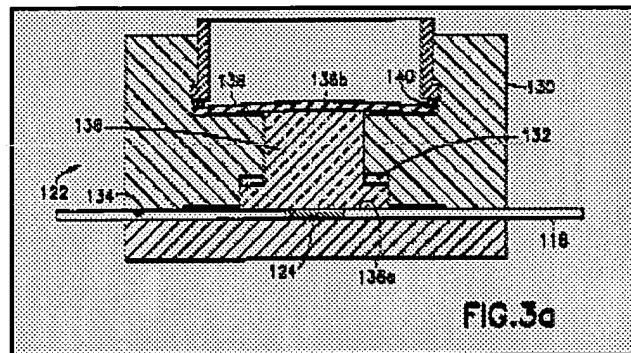


Figure 3a - U.S. Patent 6,218,661 to Schroeder et al., filed 10.16.98

2. As per claim 1, 11 and 13, Schroeder et al. disclose an apparatus comprising at least one optical fiber (118) (see also Fig. 4 – not shown above – 234, 235) supported in a structure (130); a movable mass (136) supported within the structure (130) and means (Fig. 1, not shown above; i.e. 12, 14, 16, 18, 20, 22, 24, 26) for detecting changes in tension in the at least one optical fiber due to movement of the movable mass (132) – (see abstract, Figs. 1-3).
3. As per claim 2, Schroeder et al. disclose an apparatus wherein the detecting means comprise at least one fiber optic Bragg grating (Fig. 3, 124) written into a core of each of said optical fibers.
4. As per claims 4-6, Schroeder et al. disclose an apparatus wherein detecting means comprise: a plurality of fiber optic Bragg gratings associated with each optical fiber, each of the optical fibers having a different reflective wavelength and a Bragg grating laser sensor associated with each optical fiber (abstract; Figs. 1-3).

5. As per claims 8 and 9, Schroeder et al. disclose an apparatus wherein the structure comprises a cage (Fig. 3 above) and wherein a gap is provided between each side of the mass and cage; the gap being sufficiently small to limit motion of the mass in shock or high acceleration and to limit the maximum tension seen by each of the optical fibers.

6. As per claims 12 and 14, Schroeder et al. disclose an apparatus wherein the optical fibers are the only deformable structure within the sensor (see Fig. 4, not shown above).

Allowable Subject Matter

6. Claims 3, 7 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

8. As per claim 3, the examiner found no reference in the prior art that disclosed or made obvious an apparatus comprising a plurality of optical fibers and a first fiber optic Bragg grating associated with a first one of optical fibers has a first reflective wavelength and a second fiber optic Bragg grating associated with a second one of optical fibers has a second reflective wavelength, which second reflective wavelength is different from the first reflective wavelength.

9. As per claim 7, the examiner found no reference in the prior art that disclosed or made obvious an apparatus comprising a plurality of optical fibers supported in a structure and a movable mass being surrounded by the optical fibers and being in contact with the optical fibers.

10. As per claim 10, the examiner found no reference in the prior art that disclosed or made obvious an apparatus comprising a single optical fiber having a serpentine configuration with a plurality of legs and wherein the detecting means comprises a detector in each of the legs.

Response to Arguments

11. Applicant's arguments filed 07.17.03 have been fully considered but they are not persuasive. In particular, Examiner notes that Schroeder et al. (U.S. patent 6,218,661 B1) meet the limitations as recited in the body of the claims. Examiner additionally notes that arguments supplied by applicant's representative hinge on the distinct operational differences between the art of record and the claimed invention (see p. 9, lines 5-10 Paper 3, for summary); however, since the operational features of the claimed invention are not positively recited in any of the independent claims, Examiner concludes that the arguments concerning the distinction over the art of record is not persuasive, since the invention of Schroeder et al. possess all the recited elements (see MPEP § 2145, paragraph VI).

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2882

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Courtney Thomas whose telephone number is (703) 306-0473. The examiner can normally be reached on M - F (9 am - 5 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (703) 308 4858. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0530.

Courtney Thomas



DAVID V. BRUCE
PRIMARY EXAMINER